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ABSTRACT

The third volume in this series on Serbo-Croatian-English contrastive analysis contains three articles. They are: "Recent Approaches to Grammar and Their Significance for Contrastive Structure Studies," by Rolf Berndt; "Some Remarks on the Factive and Non-Factive Complements in English and Serbo-Croatian," by Ljiljana Bibovic; and "On Conjoined Questions and Conjoined Relative Clauses in English and Serbo-Croatian," by Wayles Browne. (CLK)

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THE YUGOSLAV SERBO-CROATIAN-ENGLISH
CONTRASTIVE PROJECT
Director: Professor Rudolf Filipović, Ph. D.

B. STUDIES

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ZAGREB, 1971.
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3

Rolf Berndt: Recent Approaches to Grammar and Their Significance for Contrastive Structure Studies 1

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RECENT APPROACHES TO GRAMMAR AND THEIR SIGNIFICANCE FOR CONTRASTIVE STRUCTURE STUDIES*

By "grammar" we here understand primarily the study of language aimed at establishing organizational and operational principles not restricted to specific individual languages but applicable to human languages in general[1+2]. What we are concerned with is, more precisely, the "theory of grammar" to be considered as an integral part of "general linguistic theory". It is what some scholars call "the theory in descriptive linguistics that represents the facts about linguistic structure common to all languages"[3] or what they characterize as "the attempt to discover what is common to all languages, what are the limits within which languages can vary"[4].

Attempts such as these can scarcely be regarded as being of importance for "pure linguistics" only. Progress on the way towards achieving this goal, that is further development and elaboration of general linguistic theory, will, one can hardly doubt, also improve conditions for further progress in contrastive structure studies as well as in other branches of applied linguistics. - It is equally true, of course, that advances in contrastive linguistics, on the other hand, may very well "add to linguistic theory"[5] and thereby contribute to its further elaboration.

There is no doubt that since the establishment of Contrastive Structure Studies as a special branch of Applied Linguistics in the late fifties an

*This paper is a revised version of a guest lecture delivered at the University of Zagreb on October 14, 1970.

impressive amount of research work has been done in this field by great numbers of scholars in various countries. What cannot be doubted either is, however, that contrastive linguists no less than general linguists are still facing a number of open questions. One certainly has to admit that contrastive analyses can be done in various ways, as is clearly demonstrated by the hitherto available contrastive studies, many of which differ more or less widely in technical as well as theoretical respects and do not, to quote Rudolf Filipović, "employ a specific and consistent method that might be regarded as t h e method of contrastive analysis"[6]. But the problem of descriptive (including explanatory) adequacy can scarcely be said to be of no concern for contrastive linguists. Without belittling in any way what has been achieved so far, one cannot escape the fact that the problem of what might be regarded as the most adequate approach to contrastive analysis has not been solved yet and that up to the present day there is nothing like a fully elaborated contrastive analysis theory.

The dilemma that contrastive grammar faces is undoubtedly due, to a certain extent, at least, to our present - insufficient - state of knowledge about language in general and the individual languages in particular. There is no question that much of the ground needed for achieving comprehensive and fully systematic contrastive analyses of the subsystems of $L_{S's}$ and $L_{T's}$ (i.e. source and target languages) still has to be prepared by scholars in the field of general linguistics.

This does not at all mean, however, that general linguistic theory as developed so far has nothing to offer that contrastive grammar might

gain profit from. Efforts at further developing contrastive analysis strategy can definitely not evade critical evaluation of attempts at discovering "what is common to all languages" as undertaken (from more or less different points of view) within the framework of transformational generative theory.

To show that this can be done profitably, notwithstanding the fact that transformational linguistics itself faces open questions of a fundamental nature, will be the main concern of the present paper.

It is not to be contested, as Jeffrey Gruber points out, that "in generative grammar the connection between semantics and syntax has always been a difficult problem to elucidate clearly"[7].

Among the many still unsolved questions of presenting an adequate transformational generative model of grammatical description the fundamental problem is obviously that of what to make " the ... p r i o r o b j e c t s in the grammar, those from which sentence construction proceeds"[8]. Is priority in linguistic analysis to be assigned to s y n t a c t i c f o r m or, more broadly speaking, to s y n t a x ? Are we to start with representations of the "abstract underlying form [s]"[9] or "deep structures" (which express the semantically relevant "grammatical [i.e. syntactic] relations and functions"[10]) of b a s i c s y n t a c t i c u n i t s or syntactically structured sets or combinations of linguistic signs ("Gestalten" von Zeichenreihen) on the level of simple (or non-complex) assertive (or declarative) sentence types (" [elementare] Aussagesatzgestalten"[11]) ? Is it the base-terminal strings of sentences on which we require the semantic interpretation to operate?

Or must we, as D. Terence Langendoen puts it, look at sentences and their relationships to others "from a point of view that assigns p r i o r i t y to s e m a n t i c s" [12] ?

Are there cogent reasons for us to s t a r t with representations of the abstract underlying forms of b a s i c s e m a n t i c u n i t s on the level of simple (or non-complex) assertion (predication, statement or proposition) types (Elementar- /Grundaussageformen) ? Have we first to look for classes of (elementary) propositions, statements or assertions, i.e. reflections in the mind of states of affairs ("Sachverhalte", "Tatbestände") in objective reality or reflections of such reflections in the mind, or, in German, "Grundformen der gedanklichen Widerspiegelung" [13], and t h e n to proceed from t h e i r form to syntactic forms or structures capable of expressing the relevant semantic relations and functions found in them ? Are semantic structures to be mapped onto syntactic structures or are syntactic structures to be mapped onto semantic interpretations?

Is it a "syntactically based" theory of grammar or a more "semantically based" grammar that may put forward greater claims to descriptive and explanatory adequacy ?

Both mental or semantic images of states of affairs (i.e. non-complex statements, assertions, predications or propositions) as products of abstract or rational thinking, and combinations or strings of abstract linguistic signs (i.e. mental forms of simple or basic statement, assertive or declarative sentences), are, as can scarcely be denied, inextricably interrelated. The former are, in fact, existent in the latter only (which

Georg Klaus calls "Existenzformen gedanklicher Abbilder"[14]). Both together form inseparable dialectical units and have to be taken account of in adequate grammatical descriptions.

This is well acknowledged by linguists working within the transformational generative framework. There is, however, no longer any general agreement among them on how to approach what we have called the fundamental problem of presenting a descriptively adequate grammatical model.

In the transformational generative model set up by Noam Chomsky, as is well known, p r i o r i t y or c e n t r a l i t y is assigned to representations of the underlying, hierarchically organized structure of sentences that lead back to substructures containing "syntactic atoms" (ultimate constituents or morphemes) on which semantic interpretation is based, or, in other words, to abstract or "deep" s y n t a c t i c s t r u c t u r e s the substructures of which are said to "determine semantic interpretations"[15].

Adherents of what has come to be called the "standard theory" have laid great stress on pointing out that "the deep structure of a sentence is the abstract underlying f o r m which d e t e r m i n e s the m e a n i n g of a sentence"[16], that " the ... meaning of a sentence is d e t e r m i n e d by the underlying structure assigned to it by the syntax"[17], that "the deep structure expresses those grammatical functions"[18] and "relations ... that d e t e r m i n e the meaning of a sentence"[19] or "play a central role in d e t e r m i n i n g the s e m a n t i c i n t e r p r e t a t i o n"[18], or, to give just one more quotation, that "the underlying structure ... determines the s e m a n t i c c o n t e n t"[20].

This is certainly no "linguistic relativism" or "relativity theory" of the Whorfian kind, as the rules (or part of them, at least) that generate, and the constructs that make up deep syntactic structures - according to Jerrold J. Katz, "the domination relations and category constructs and the relations between them that determine the grammatical relations"[21] - are assumed to be invariant from language to language or linguistically universal and ultimately explicable on the basis of "still more general principles of human mental structure"[22]. But the views expressed here on the connections between syntax and semantics are obviously based on a kind of s y n t a c t i c d e t e r m i n i s m.

One may, at least, express doubts as to whether this approach, this s t a r t i n g from the s e n t e n c e as an abstract unit of syntactic structure and the m a p p i n g o f i t o n t o a s e m a n t i c (as well as a phonological) r e p r e s e n t a t i o n - "a syntactic structure Σ is mapped onto the pair (P, S) [where S stands for "semantic representation"]"[23] - will enable linguists to tackle the problem of the d i a l e c t i c a l l y c o n t r a d i c t o r y c h a r a c t e r o f t h e i n t e r r e l a t e d n e s s of syntactic and semantic structures, of sentences and thoughts fixed and expressed in sentences.

What is pointed out by philosophers from the point of view of the dialectical materialistic theory of cognition can certainly not be ignored by linguists: "Linguistic signs and thoughts are indissolubly linked with one another, but this link is dialectically contradictory. This can be seen, for example, by the fact that it is often difficult to find the appropriate linguistic formulation

of a thought."[24] "It is true that the allocation of signs to thoughts and vice versa is always there in some way or other, but it is not a simple one-to-one correspondence. One and the same thought can be expressed in a variety of ways by signs ... In the process of mental work there will always be a continuous reciprocity."[25] "It is true that every judgment can exist only when expressed in language, namely in the form of an assertive or statement sentence ... But ... there ... is ... no reversible unequivocal allocation between judgment and sentence."[26]

One and the same cognitive content or, in other words, reflections in the mind or mental images of one and the same state of affairs (Sachverhalt) can - even in one and the same language - often be represented in a number of more or less differently structured, but not necessarily stylistically different, sentences. "A particular sentence is not to be equated with a proposition; it turns out that many different sentences can express the same proposition"[27]. It is important to stress in this connection that what we are speaking of are b a s i c predications or propositions ("Grundaussagen") or mental reflections of o n e and t h e s a m e state of affairs, n o t complex predications or statement combinations ("zusammengesetzte Aussagen", "Aussageverbindungen") in the sense of mental pictures of the relations existing between states of affairs ("Abbildungen der Beziehungen zwischen Sachverhalten").

The latter have, from a primarily syntactical point of view, already been dealt with in Chomsky-oriented grammatical descriptions under the term of "syntactically synonymous constructions or paraphrases', i.e.

constructions such as

(1) (i) [the fact] that he eats apples is surprising [to me]

(ii) it is surprising [to me] that he eats apples

(iii) it is surprising for him to eat apples

(iv) for him to eat apples is surprising

(v) his eating apples is surprising

'Intra-language paraphrase relations' of the kind we have in mind do exist, for instance, in cases like

(2) (i) this room has three windows
this house has six rooms

(ii) there are three windows in this room
there are six rooms in this house

(3) (i) this house has an excellent garden

(ii) there is an excellent garden with this house.

Even more illustrative are, perhaps, the following examples:

(4) (i) Peter resembles Jack

(ii) Jack resembles Peter

(iii) Peter bears resemblance to Jack

(iv) Jack bears resemblance to Peter

(v) Peter is similar to Jack

(vi) Jack is similar to Peter

(vii) Peter and Jack resemble each other

(viii) Jack and Peter resemble each other

(ix) Peter and Jack are similar to each other

(x) Jack and Peter are similar to each other

(xi) Peter and Jack are similar

(xii) Jack and Peter are similar

The twelve English sentences just given, apart from not being markedly different stylistically, obviously have the same "cognitive content" or do, in other words, reflect one and the same - objective - state of affairs (Sachverhalt,

Tatbestand). This is the least we can say should we not be inclined to accept that these twelve sentences "mean the same" in an absolute sense, that they are 'completely identical in meaning'. If we do not wish to exclude potential differences of "connotation or 'topic' or emphasis"[28] or, as Chomsky also calls it, differences "in the range of possible focus and presupposition"[29], and thereby imply the existence of something like a 'fundamental meaning' or 'semantic meaning', we may at least say that the sentences under consideration are 'cognitively synonymous' or 'conceptually identical', that what we have here are mappings of a cognitive invariant, i.e. of one and the same proposition, onto differently structured sentences.

The question hence arises: Which is the underlying -language invariant - s y n t a c t i c structure by which "the semantic content" under consideration may be said to "be determined" and from which all of the twelve English sentences are rightly claimed to be derived by means of language-specific transformational rules?

The underlying s e m a n t i c structure or 'statement form' from which the particular statement may be said to be derived (by substitution of constants for the variables) is easily describable and might, roughly, at least be characterized as

M — Stative — Relational — Symmetrical — Similative — ⟨non-Agentive ⟨animate individual⟩⟩ — ⟨non-Agentive ⟨animate individual⟩⟩ ,

not so, however, the "deep syntactic structure" which, according to the 'standard theory', d e t e r m i n e s the assertion in question.

'Syntactic determinism', therefore, seems to us to be ultimately incompatible with the dialectically contradictory character of the correlations between (strings of) linguistic signs, or sentences, and thoughts (represented and conveyed in sentences).

Although we do not in any way deny the semantic relevance of (certain) forms and principles of syntactic organization - especially as reflected in the surface structure of sentences - and readily accept that "the syntactic relations are... generalizations of semantic relations" and that "syntactic relations once they have come into existence and have been represented in their purity, are no longer relevant to the domain of semantic relations only but are valid beyond this (for the notion of syntactical non-contradictoriness may eventually also refer to semantic inconsistencies)"[30], we are of the opinion that neglect of the reciprocity of the relations, or the two-way relationship, between semantic and syntactic phenomena must, of necessity, impede further progress of linguistic research in various fields.

Let me direct your attention once again to 'cognitively synonymous' sentences such as

(2) (i) this room has three windows

German: dieses Zimmer hat drei Fenster
Russian: eta kómnata iméet tri okná

(2) (ii) there are three windows in this room

German: in diesem Zimmer sind drei Fenster
Russian: v étoj kómnate (est'/imejutsja) tri okná ,

the underlying semantic structure of which might be provisionally described as

M Existential Objective Objective/Locative

(i.e. inherently locative Object). (More precise representations would, obviously, have to take into consideration that the statement in question - in contrast to others like "There are three beds in this room (now), but normally there are only two beds in it" - refers to permanent or, at any rate, less transient properties).

Linguistic phenomena such as these and similar ones have led some transformational linguists to raise the question of the existence of s e m a n t i c 'distinctions' or 'principles' which possibly influence the syntactic structuring or organization of sentences or, in other words, "have syntactic relevance". Thus George Lakoff expresses the opinion "that semantics plays a central role in syntax."[31], and John Lyons submits certain proposals that "presuppose or imply that both the lexical and the s y n t a c t i c structure of language are in part d e t e r m i n e d by such principles as 'agency', 'causativity', 'state' (v. 'activity' or 'proces')"[32] etc.

Research[32a] in this direction has, moreover, received important new impulses from Charles J. Fillmore's study published under the title "The Case for Case"[33] and other contributions to linguistic theory by the same author[34]. Other publications to be mentioned in this connection are, for example, those of Terence D. Langendoen[35], Jeffrey Gruber[36] or R. P. Stockwell-P. Schachter - B. Hall Partee[37].

Continued search for s y n t a c t i c a l l y r e l e v a n t (basic) s e m a n t i c p r o p e r t i e s and relations will, in our opinion, prove highly fruitful for further research in general linguistics

as well as in various other branches of applied linguistics and give further support to conceptions of grammatical theory that make representations of abstract formal structures of basic semantic or cognitive units (on the assertion level) the "prior objects in the grammar, those from which sentence construction proceeds"[38].

In our endeavours at discovering 'semantic distinctions' or 'principles' which may influence the syntactic structure or, in other words, for "semantic properties [which] have syntactic consequences"[39], special attention, obviously, has to be paid to questions concerning the manner in which the terms of a predication (proposition, statement, assertion or judgment), i.e. of semantic constructs, are interrelated.

Reflections in the mind of (non-complex) states of affairs ("einfache Sachverhalte" in contrast to "komplizierte Sachverhalte"[40]) as occurring in objective reality or reflections of such reflections in the mind - in the form of predications etc. - obviously also have to reflect essential properties (and properties of properties) of material or ideal objects as well as characteristic relations existing between these material or ideal objects; for such objects not only have essential attributes, qualities or properties but also stand in various relationships to each other.

This leads us to questions concerning the relations that hold between the constituents or terms of a predication or proposition ('Glieder einer Aussage') considered as a mental image of a certain state of affairs as characterized in the preceding paragraph. What we are interested in, in other words, is what is called in current literature 'Denkbeziehungen',

'conceptual relations', 'logical relations' or 'semantic relations'.

Two things may be understood by these terms, if we do not wish to confine ourselves to central concepts of the predicate theory of logic but also take into consideration additional concepts such as those suggested by Charles J. Fillmore, which are at least not fundamentally different from what logicians call "die Funktionen, in denen gewisse x_i als Argumente auftreten können"[41], if what we understand by these are 'linguistically significant' functions.

First, then, we have the basic predicational properties and relationships given by predicates ('predicate terms', 'predicate-names', 'Relationsbegriffe'), also called 'aussagenlogische Beziehungen', that is the semantic relationships of predicates to the entities that are associable with them, the so-called arguments (or variables standing for 'all the objects of which a particular predicate may be truthfully asserted'[42]).

Relationships (or relational classes) of this kind are, for example, the so-called symmetrical relations comprising, among others, relations such as 'identity' - 'distinctness', 'similarity' - 'dissimilarity', 'correspondence' - 'non-correspondence', 'relatedness', 'connectedness' - 'disconnectedness', 'parallelism', 'equivalence', 'consistency' - 'inconsistency', 'compatibility' - 'incompatibility', 'jointness in common or reciprocal action', etc., found, for instance, in statements like

(5) Sheila is a sister to Susan[43]
(6) I am not related to him
(7) The island is joined to the mainland with a bridge
(8) England is separated from France by the Channel
(9) The road runs parallel to (with) the railway
(10) Her account agrees with yours

(11) Wisdom is not inconsistent with mirth

(12) Prejudice is not compatible with true religion

(13) His actions do not correspond with his words

(14) His actions are inconsistent with his statements

(15) John {robbed a bank / wrote the book} with Bill

(16) John {played badminton / exchanged seats} with Bill

There is no doubt that relations such as these and others do, in fact, "have syntactic consequences" as far as the applicability or non-applicability of certain grammatical transformations is concerned. A typical example of a symmetric predicate and the various possible ways of converting it into syntactic structures (assertive sentences) has been given already:

(17) (i) Peter {resembles / is similar to} Jack .

What is characteristically symmetric about the predicate in question, namely the possibility of interchanging its terms without altering the value or truth of the predication -

(17) (ii) Jack {resembles / is similar to} Peter -

as well as the convertibility of the underlying structure into

(17) (iii) {Jack and Peter / Peter and Jack} {resemble each other / are similar (to each other)} ,

is, quite evidently, not possible in the case of a predication like

(18) Peter {likes / is fond of} Jack ,

which is not identical with or does not imply

(19) Jack {likes / is fond of} Peter or

(20) {Peter and Jack / Jack and Peter} {like one another / are fond of each other} .

The latter obviously have to be considered complex predicates built up out of two simple predicates by means of statement conjunction.

Relations of this kind are, however, quite obviously not the only ones that "have syntactic consequences". In addition to them other relationships have to be taken into account.

Secondly, we may, therefore, distinguish the s e m a n t i c r e l a t i o n s in which the arguments that the predicate can take (the objects or object-variables - 'Dingvariable' - concerning which the predicate asserts something) stand to the predicate, "the relationships which the arguments hold to the predicate as a whole"[44].

This is what has also been called "the role relations of variables to predicates"[45] or, to quote Fillmore, "case relationships" or simply "cases" definable as the separate - linguistically significant - roles which the arguments of a predication have or play in respect to the relation given by the predicate term.

Attempts at defining relationships of this kind have led to - more or less provisional - 'case' or 'role concepts' or, as Mark M. Goldin puts it, "abstract relational categories" or "case categories"[46] such as AGENTIVE (A) (the initiator of the action identified by the verb), (agentive) SOURCE (S), (agentive) GOAL (G), (non-agentive, animate) GOAL (the receiver of the object or objects transferred from one person to another), (non-agentive, animate) SOURCE, (animate) PATIENT (P) (the being or institution that is affected by the action or process identified by the verbal or that is in a certain state or condition), EXPERIENCER (E) (the being that experiences something), NON-

AGENTIVE (the neutral case in connection with animate beings), BENEFACTIVE (B) (the animate being for the benefit of whom something is done), COMITATIVE (C) (designating, amongst others, the one who acts as the partner of the Agentive in either united or reciprocal action and, therefore, might equally well be called the CO-AGENTIVE), COUNTER-AGENTIVE (CA), (non-animate) PATIENT (the affected object), pure OBJECTIVE (O) (the unaffected object), CAUSE, INSTRUMENTAL (I), FACTITIVE (F) (the effected object, the object being the result of the action identified by the verb), SOURCE (in the sense of locality), GOAL (in the sense of locality), LOCATIVE, DIRECTIVE, etc.

It is true, of course, that the problem of determining what the linguistically significant roles are, and how many of them there are, that will have to be distinguished in universal grammar, has by no means been solved yet and that we are still far from achieving the goal of setting up a universal inventory of roles and role-types. But the syntactic relevance of semantic relationships like these or similar ones, we think, can scarcely be disputed.

The following examples may serve to illustrate this:

(21)	Peter has	read	the book
(22)		written	
(23)(i)		damaged	
(23)(ii)		soiled	
(23)(iii)		dirtied	

The 'roles' of the arguments - i.e. 'Peter' and 'the book' - in the predications expressed in sentences (21) to (23) obviously differ - although the sentences themselves are all alike in their (syntactic) surface structures

and would, except for the lexical entries, in the Chomskian 'standard theory' also have to be considered identical in their deep structures.

The syntactic consequences arising from the different 'relationships which the arguments hold to the predicate as a whole' may be seen, for example, from the applicability or non-applicability of certain question transformations:

What has Peter done ? (generally applicable)

What has Peter done with the book? (not applicable to (22))

What has Peter done to the book? (applicable to(23) only)

What change (of condition state) has the book undergone (as a result of Peter's action) ? (applicable to (23) only)

In what condition or state is the book (now - as a result of Peter's action)? (clearly applicable to (23), whereas opinions may differ with regard to (22); but a sentence like

"The book , written now, and I don't intend to change it again" seems to sound perfectly acceptable[48]).

The semantic relationships that are to be found among the components in the separate predications under consideration might be roughly represented as

(21)	M	Actional :	pObjective	pAgentive
(22)	M	Actional :	Factitive (or E-Objective)	E-Agentive
(23')	M	Actional : Causative specific	non-an Patient	dir C-Agentive
or (23'')	M	Actional : Causative general	OBJECTIVE#S#	dir C-Agentive
#S#⟶	M	Mutative	non-an Patient	[49] .

What we have in cases like these is a new phenomenon different from that to be found in examples of the type "Peter resembled Jack". The latter

served to illustrate that reflections in the mind of one and the same non-complex state of affairs or, in other words, one and the same simple predication or assertion may be expressed in differently structured statement or assertive sentences, that there may be a one-to-multiple correspondence between simple assertions and assertive sentences.

To this we may now add, referring to examples (21) to (23), that, on the other hand, one and the same basic (or simple) syntactic structure (in the classical Chomskian transformational generative model even one and the same deep syntactic structure) may very well permit conveyance of-relationally - differently structured basic (or simple) predications, i.e. predications differing in their relations between arguments and predicates.[50]

That this is so can also be seen, for example, from the following set of sentences:

(24)	Peter is	tall
(25)		cheerful / merry
(26)		kind
(27)		silly
(28)		progressive
(29)		alive

It will scarcely be disputed that these six assertive sentences are absolutely identical in their syntactic surface structures. In the 'standard theory' they would, probably, also be considered as having a common underlying deep syntactic structure (apart from the lexical entries, of course).

Nothing of the kind can, however, be said to hold true with respect to the potential underlying structures of the assertions fixed and conveyed in these sentences. The information possibly to be obtained from them is evidently not restricted to certain - relative or absolute - properties of Peter - his physical attributes in relation to others of his kind, certain mental or psychical qualities (disposition, intelligence, etc.) of him and his attitude of mind or conviction with regard to political, social and economic questions. What may also be gathered from part of the sentences is information about the physical or emotional 'states' of Peter at a particular moment (cp. sentences (29) and (25)) or even, what may seem less obvious, about the manner or way in which Peter acts or behaves (cp. sentences (25) to (28)).

The importance of semantic distinctions like these and their potential syntactic relevance may be shown by contrasting the possible meanings of sentence (25) with their Russian translational equivalents. Sentence (25)

Peter is cheerful / merry

may, obviously, be considered as having a three-fold ambiguity :

(25)(i) Peter has a particular disposition: Peter is a cheerful person, Peter is cheerful / merry by nature.

(25)(ii) Peter experiences a certain feeling or is in a particular emotional state : Peter is in a merry mood, in good spirits.

(25)(iii) Peter acts or behaves in a certain way: Peter is merry in his doings or conduct, Peter is being cheerful/merry, Peter makes merry .

(We readily concede that the optimal way of expressing Peter's behaving in the above mentioned way would be that of using the 'progressive' instead of the 'simple' form, as would also be the case in sentences (26) to (28) :Peter is being kind /silly /progressive).

The three assertions expressible in English in one and the same sentence will have to be conveyed in three differently structured sentences in Russian, namely

(25) (i) Pëtr veselyj (čelovek)

(25) (ii) Pëtr vésel , or, Petrú véselo

(25) (iii) Pëtr veselítsja .

The underlying relational structures of the assertions in question might be roughly characterized as follows

(25) (i)	M	Stative Qualitative Dispositional		non-Agentive ⟨animate⟩
(25) (ii)	M	Stative Emotional		Experiencer
(25) (iii)	M	Actional	Modal	pAgentive

The doubtfulness of the procedure of s t a r t i n g from the s e n t e n c e as an abstract unit of syntactic structure, claimed to be essentially language invariant, and of i n s e r t i n g meaning elements into it, may be further seen from examples like the following:

(30)	Peter	resembled	Jack
(31)		liked	
(32)		chased / visited	
(33)		caught / found	
(34)		killed	

Again there is identity as far as the English surface structures are concerned. The same holds true for most, not all, of the corresponding

Russian sentences:

(30)		pochodil (lit. arch.) / (byl pochóž na)		
(31)		ljubil		
(32.2)	Pëtr	posetil		Ivána
(33)		pojmál / našël		
(34)		ubil		
(32.1)	Pëtr	(po)gnálsja	za	Ivánom .

The difference in the relations existing between predicates and arguments is clearly brought out by question transformations, such as

(30) What relation existed between Peter and Jack?

(31) What were Peter's feelings in relation to Jack ?

(32.1+2) What did Peter do ?

(32.1) What did Jack do ? (Jack ran away from Peter)

(33) What did Peter achieve / effect ? (What was the result of Peter's activity / action ?)

(34) What did Peter do to Jack?

(34) What happened to Jack ? (probably also applicable to (33.1))

The 'deep semantic structures' here might be provisionally represented as

		Stative		
(30)	M	Relational		
		Symmetrical Similative	non-Agentive ⟨animate⟩	non-Agentive ⟨animate⟩
		Stative		
(31)	M	Relational		
		Mesosymmetric Emotive	non-Agentive ⟨animate⟩ (? Goal)	Experiencer
		Actional		
(32.1)	M	Motional		
		⟨purposeful⟩	Goal/Agentive	Source/Agentive

(33.1)	M	Actional { Resultative / Perfective }		Patient ⟨animate⟩	E-Agentive
(34')	M	Actional Causative ⟨specific⟩		Patient ⟨animate⟩	dir C-Agentive
or (34'')	M	Actional CAUSATIVE		OBJECTIVE # S #	dir C-Agentive
	# S # → M	Mutative		Patient ⟨animate⟩	

A most interesting case of p a r t i a l syntactic relevance of certain semantic properties in one language (or 'language group', such as English, German and French) is that of what might be called 'absolute' and 'relative' metrical attributes .

Attributes of this kind are found, for instance, in assertions like the following

(35) Peter is { (rather) / six feet } tall - Pëtr { vysókogo rósta (of tall stature) / sto vósem'desjat santimetrov* }

(36) The tower is { (very) / 90 feet } high - Bašnja { (očen') vysókaja / tridcat' métrov vysotój }

(37) The room is { (comparatively) / fifteen feet } long

(38) This street is { (unusually) / twelve feet } broad

(39) The river is { very / twelve feet } deep (at this point)

---

* An alternative Russian construction would be Rost Petrá sto vósem'desjat santimetrov .

(40) Peter is $\left\{\begin{matrix}\text{rather} \\ \text{seventy years}\end{matrix}\right\}$ old

but : (41) This box $\left\{\begin{matrix}\text{is very heavy} \\ \text{weight / has a weight of/forty pounds}\end{matrix}\right\}$

(Compare German, however: Diese Kiste is $\left\{\begin{matrix}\text{sehr} \\ \text{vierzig Pfund}\end{matrix}\right\}$ schwer)

(42) The iron $\left\{\begin{matrix}\text{is (very) hot} \\ \text{has a temperature of fifty degrees}\end{matrix}\right\}$

(43) This watch $\left\{\begin{matrix}\text{is (very) valuable} \\ \left\{\begin{matrix}\text{has a value of a hundred pounds} \\ \text{is worth a hundred pounds}\end{matrix}\right\}\end{matrix}\right\}$

The differentiations found in English in connection with metrical properties such as weight, temperature and (monetary or other) value, for example, as opposed to spatial extent (height, length, breadth, width, thickness, etc.) and length of time during which a being or thing has existed (age) or during which something continues or exists (duration), hold true for Russian in general where there is a clear-cut division between relative and absolute (metrical) properties. It is in the former only that adjectives may be used.

Assertions of the type "Peter is tall" that superficially look like simple or elementary predications prove, in fact, to be 'condensations' of, at least, three basic propositions as may be seen from the following - more or less tentative - representations of the underlying semantic structures:

M

Stative
Relational
Asymmetrical
$\left\{\begin{matrix}\text{Comparative} \\ \text{Relative}\end{matrix}\right\}$
$>$ or $\gg$

Property/Attribute$_1$
Physical / ...
$\left\{\begin{matrix}\text{Quantitative} \\ \text{Metrical}\end{matrix}\right\}$ $\#S_1\#$
⟨individual⟩

Property/Attribute$_2$
Physical / ...
$\left\{\begin{matrix}\text{Quantitative} \\ \text{Metrical}\end{matrix}\right\}$ $\#S_2\#$
⟨average/normal⟩

$\#S_1\#\rightarrow M$ Stative
Attributive
Physical/ ...
{Quantitative / Metrical}
⟨individual⟩

{ non-Agentive
⟨animate / individual⟩
pObjective
⟨individual⟩ }

$\#S_2\#\rightarrow M$ Stative
Attributive
Physical/ ...
{Quantitative / Metrical}
⟨average/normal⟩

{ non-Agentive
⟨animate / collective: members of the same group or class⟩
pObjective
⟨collective: members of the same kind or class⟩[51] }

The following examples may serve to roughly illustrate the above given characterizations of the underlying semantic structures. (No claims are made here to preciseness in respect to the representation of the separate transformational cycles (i.e. series of operations regarded as a unit) and their sequence.)

S ⟶ Pres {be (very) great / in comparison with / be above} the height$_1$ # Pres {be of / have} the height$_1$

the tower # the {average / normal / usual} height$_2$ # Pres {be of / have} the height$_2$

other {objects of the same kind / towers} #

⟹ the height$_1$ # the tower {is of / has} the height$_1$ # is {(very) great in comparison with / above}

the {average / normal / usual} height$_2$ # other towers {are of / have} the height$_2$ #

⟹ the height of the tower is {(very) great in comparison with / (much) above / (much) greater than}

the {average / normal / usual} height of other towers

or $\Longrightarrow$ the tower has a (very) great height in comparison with

(a) the {average / normal / usual} height of other towers

(b) other towers of {average / normal / usual} height

or $\Longrightarrow$ the tower is of (very) great height in comparison with

(a) the {average / usual / normal} height of {others of its kind / other towers}

(b) other towers of {average / normal / usual} height

or $\Longrightarrow$ the tower is of much {greater / more} than the {average / normal / usual} height of {other towers / others of its kind}

or $\Longrightarrow$ the tower is (very) h i g h in comparison with other towers of {average / normal / usual} height

or $\Longrightarrow$ the tower is (much) higher than other towers of {average / normal / usual} height

or, with d e l e t i o n of the other term of the comparison :

$\Longrightarrow$ the tower has a (relatively) great height

or $\Longrightarrow$ the tower is ({very / comparatively / relatively}) high

German: der Turm ist ({sehr / verhältnismässig / relativ}) hoch

Russian: bašnja ({očen' / sravnitel'no}) vysókaja

What may ultimately, i.e. as a result of the application of certain 'lexicalization rules', be expressed by means of an a d j e c t i v e in all of the three languages under comparison (in our case by HIGH - HOCH - VYSOK-AJA) is a r e l a t i v e, as opposed to an absolute, property.

'High' or, with persons, 'tall' actually stand for

$$\text{of} \left\{ \begin{matrix} \text{more} \\ \text{greater} \end{matrix} \right\} \text{ than the } \left\{ \begin{matrix} \text{average} \\ \text{normal} \\ \text{usual} \end{matrix} \right\} \text{ height (of } \begin{matrix} \text{members of the same} \\ \text{kind or class} \end{matrix} \text{)}$$

Their antonyms 'low' or, with persons, 'short' do not at all "refer to independent, 'opposite' qualities, but are mere lexical devices"[52] for

$$\text{of less than the} \left\{ \begin{matrix} \text{average} \\ \text{normal} \\ \text{usual} \end{matrix} \right\} \text{ height (of } \begin{matrix} \text{members/objects of} \\ \text{the same kind/class).} \end{matrix}$$

Whilst assertions of the type "The tower is high" have to be considered as 'two-place predicates', things are obviously different with propositions of the type "The tower is ninety feet high". T h e i r underlying or 'deep' semantic structures may, roughly, at least, be described as

$$\#S\#\rightarrow M \quad \begin{matrix} \text{Stative} \\ \text{Attributive} \\ \text{Positive/Absolute} \\ \text{Quantitative Measure(ment)} \end{matrix} \qquad \begin{matrix} \text{Property / Attribute} \\ \text{Physical / ...} \\ \text{Quantitative/Metrical} \end{matrix} \#S_1\#$$

$$\#S\#\rightarrow M \quad \begin{matrix} \text{Stative} \\ \text{Attributive} \\ \text{Physical/ ...} \\ \text{Quantitative / Metrical} \end{matrix} \qquad \left\{ \begin{matrix} \text{non-Agentive} \\ \langle\text{animate}\rangle \\ \text{pObjective} \end{matrix} \right\} \quad 53$$

By substituting constants for the variables in the underlying statement form, structures approximately similar, at least, to the following may be obtained:

$$S \longrightarrow \text{Pres-} \left\{ \begin{matrix} \text{be} \\ \text{measure} \\ \vdots \end{matrix} \right\} \text{ ninety feet- the height } \# \text{ Pres-} \left\{ \begin{matrix} \text{be of} \\ \text{have} \end{matrix} \right\} \text{ the height}$$

the tower ⧫

$\Longrightarrow$ the height of the tower is ninety feet

(German: die Höhe des Turms beträgt dreissig Meter)

(French: la hauteur de la tour est de trente mètres)

(Russian: vysotá bašni [sostavljaet] tridcat' metrov)

or $\Longrightarrow$ the tower has a height of ninety feet

(German: der Turm hat eine Höhe von dreissig Metern)

(Russian: bašnja imeet vysotú tridcat' metrov)

or $\Longrightarrow$ the tower $\left\{\begin{matrix}\text{is}\\ \\ \text{measures}\end{matrix}\right\}$ ninety feet in height

(German: der Turm misst dreissig Meter in der Höhe)

(French: la tour a trente mètres de haut(eur))

(Russian: bašnja tridcat' metrov vysotój
bašnja vysotój (v) tridcat' metrov)

or $\Longrightarrow$ the tower is ninety feet h i g h

(German: der Turm ist dreissig Meter h o c h)

(French: la tour est h a u t e de trente mètres)

(Russian: no equivalent construction !)

The 'lexicalization rules' spoken of in connection with the expression of 'relative properties' are, as can be seen from the examples given above, no longer applicable in a l l of the languages under comparison in the case of a b s o l u t e qualities or properties. Whilst English, partially, at least, permits of lexicalizations in these cases, i.e. transformations of measure phrases such as " be ... in height " into "be ... high", and is similar, in this respect, to German and French, such lexicalization rules are clearly blocked in Russian where the use of adjectives of this kind is confined to relative properties only .

Examples like these and others given on the preceding pages, in our opinion, not only point up the necessity for general linguistic theory to "recognize a still

deeper, and more universal, layer of structure",[54] but also clearly show the significance of this new approach to grammar for contrastive structure studies.

Facts like the expressibility in one and the same language of one and the same basic assertion in a number of differently structured basic assertive sentences as well as the possibility of conveying relationally differently structured basic predications in one and the same basic syntactic structure, to quote only some of the questions raised in our paper, are not only relevant for general linguistic theory but represent, at the same time, phenomena that contrastive linguistics must of necessity deal with.

Although mostly concerned with discovering and systematically representing inter-language commonalties, similarities and differences between t w o languages only, contrastive grammar obviously has to take an interest also in "general principles... applicable to a l l languages"[55] or, in other words, "those features ... that are invariant from language to language"[56].

The more linguists succeed in discovering what, although language-linked, is language-invariant, the better they will be able to cover and describe precisely and systematically what is language-variant, specific or particular with respect to the languages under comparison.

There cannot be the slightest doubt that what is language-invariant is n o t the surface structures of sentences as found in Russian, English, German or any other language. There will no longer be general agreement, however, as to whether it is the d e e p s y n t a c t i c s t r u c t u r e s claimed to underlie these sentences of which "universality" can rightly be assumed.[57] As far as we can see there is every reason to call this into question.

The only remaining alternative, then, is to ask whether what we are looking for is 'cognitive' or 's e m a n t i c' s t r u c t u r e s - basic propositions and combinations of them - expressed in (more or less) differently structured sentences by speakers of different languages (or, even, of one and the same language). This is what A.A. Hill seems to imply when saying that "deep structure is the structure of thought"[58]. In fact, it is structures of this kind which are considered essentially language-invariant by many scholars and of which, according to our view, this may be most justifiably claimed.[59]

If so, or roughly so, at least, then one of the major objects of contrastive linguistics (if not the only one) would indeed consist in discovering how language-invariant concepts and propositions - in the sense of reflections in the mind of states of affairs of the primary material and social reality or reflections of such reflections in the mind - are ultimately realized or expressed in language specific forms or structures in the two languages under comparison (by means of partly universal and partly language particular sets of elements and rules).

As the number of potential concepts and propositions etc. is unlimited or infinite, as is the set of sentences needed to fix and convey them, and language, therefore, has to "provide the means for expressing indefinitely many thoughts"[60], it is, of course, no use s t a r t i n g with individual propositions or assertions. It seems, however, quite possible to find a starting point other than the level of d e e p s y n t a c t i c s t r u c t u r e s and to set up, instead, a level of d e e p s e m a n t i c s t r u c t u r e s, sometimes also called the level of semantic relations ('Ebene der semantischen Beziehungen').

The structures generated at this level are "pre-lexical structures" specifying the underlying relational structure of proposition types and consisting of abstract relational notions (predicate terms and role types) for which constants are substituted in the process of the derivation of individual propositions and the sentences available for expressing them. What we get at this level is, therefore, but a part of what is needed for the full semantic representation of particular propositions. It is, in other words, p r o p o s i t i o n f r a m e s , patterns or m o d e l s or, more precisely, perhaps, language-invariant representations of the relational structure, pattern or schema of s e m a n t i c units on the proposition level or, simply, d e e p s e m a n t i c s t r u c t u r e s .

Proceeding in this way will, in our opinion, enable linguists to evade the dilemma arising from what we have called 'syntactic determinism'. It will, we feel sure, also open up new ways and possibilities for contrastive structure studies aimed at providing results upon which new teaching materials may profitably be based. One should mention, in conclusion, at least, that similar ideas were already put forward in 1968 by Charles J. Fillmore who then expressed the opinion that "many of the analyses have (hopefully) the result that certain semantic distinctions and interlanguage commonalities are revealed in fairly direct ways in the deep structures of case grammar."[61]

NOTES

1 + 2. From the very beginning we should like to point out that our assuming the existence of 'organizational and operational principles applicable to human languages in general' or principles which, although language-linked, are language-invariant (i.e. not restricted to individual languages), does not at all imply ignoring the sociological aspects of language (which, again, hold true of human languages in general but are reflected in them in specific ways dependent upon the particular socioeconomic formation or developmental stage of society and the communicative needs and communities resulting from it).

3. Jerrold J. Katz, The Philosophy of Language, New York, 1966, p. 8.

4. Universals in Linguistic Theory, edited by Erwon Bach and Robert T. Harms, New York, 1968, p. VI.

5. Rudolf Filipović, "The Yugoslav Serbo-Croatian - English Contrastive Project", Second International Congress of Applied Linguistics, Cambridge 8 - 12 Sept. 1969, mimeographed copy, p. 2.

6. ibid., p. 8.

7. Jeffrey S. Gruber, "Studies in Lexical Relations", Reproduced by the Indiana University Linguistic Circle, January 1970, p. 1.

8. Jerrold J. Katz, "Interpretative Semantics vs. Generative Semantics", FL (Foundations of Language) $6._2$ (1970), p. 2. ...

9. Noam Chomsky, "The Current Scene in Linguistics: Present Directions", College English XXVII (1966), quoted from Owen Thomas, The Structure of Language, Indianapolis, 1967, p. 57.

10. Noam Chomsky, Language and Mind, New York, 1968, p. 31.

11. Georg Klaus, Spezielle Erkenntnistheorie, Berlin, 1965, S. 286.

12. Terence D. Langendoen, Essentials of English Grammar, New York, 1970, p. 51.

13. Georg Klaus, Einführung in die Formale Logik, Berlin 1958, S. 27.

14. Georg Klaus, Spezielle Erkenntnistheorie, op. cit., S. 19.

15. Jerrold J. Katz, FL. $6._2$ (1970), p. 259.

16. Noam Chomsky, "The Current Scene...", loc. cit., p. 57.

17. Jerrold J. Katz and Paul M. Postal, An Integrated Theory of Linguistic Descriptions, Cambridge, Mass., 1964, quoted from Modern Studies in English. Readings in Transformational Grammar. Edited by David A. Reibel and Sanford A. Schane, New Jersey, 1969, p. 25note.

18. Noam Chomsky, Language and Mind, p. 26.

19. ibid., p. 31.

20. Noam Chomsky, "Persistent Topics in Linguistics", Diogenes No 51 (1965), p. 15f.

    In "Deep Structure, Surface Structure, and Semantic Interpretation", mimeographed copy, Chomsky expresses the opinion that notions such as 'focus', 'presupposition' and 'shared presupposition' "seem... to provide strong counter-evidence to the standard theory which stipulates that semantic interpretation must be entirely determined by deep structure" (p. 43) and that "properties of surface structure play a distinctive role in semantic interpretation" (p. 66a).

21. Jerrold J. Katz, FL 6.$_2$ (1970), p. 259.

22. Noam Chomsky, "The Current Scene...", loc. cit., p. 60.

23. id., "Deep Structure, Surface Structure, and Semantic Interpretation", mimeographed copy, p. 9.

24. Georg Klaus, Spezielle Erkenntnistheorie, Berlin, 1965, S. 330.

25. ibid., p. 346.

26. Georg Klaus, Einführung in die Formale Logik, Berlin 1958, S. 29. The German original, kindly translated into English by my colleague and friend, Mr. Patrick Plant, M.A., is : "Sprachliche Zeichen und Gedanken sind untrennbar miteinander verknüpft, aber diese Verknüpfung ist dialektisch widerspruchsvoll. Man merkt dies u.a. auch daran, dass es oft schwer ist, zu einem Gedanken die entsprechende sprachliche Formulierung zu finden." "Die Zuordnung von Zeichen und Gedanken... ist... zwar in irgendeiner Weise immer gegeben, sie... ist... aber nicht eineindeutig. Gedanken können in vielerlei Weise durch Zeichen ausgedrückt werden... Im Prozess der geistigen Arbeit wird eine ständige Wechselwirkung zwischen dem Zeichen und dem Gedanken stattfinden." "Jedes Urteil bedarf ... zwar ... eines sprachlichen Ausdrucks, nämlich des Behauptungs- bzw. Aussagesatzes... Aber... es... gibt... keine umkehrbar eindeutige Beziehung zwischen Urteil und Satz."

27. Terence D. Langendoen, Essentials of English Grammar, New York, 1970, p. 32f.

28. Noam Chomsky, Aspects of the Theory of Syntax, Cambridge, Mass., 1965, quoted from Modern Studies in English (cp. note 17), p. 41.

29. Noam Chomsky, "Deep Structure, Surface Structure, and Semantic Interpretation", mimeographed copy, p. 38.

30. Georg Klaus, Spezielle Erkenntnistheorie, Berlin 1965, S. 254: "Die syntaktischen Beziehungen sind... Verallgemeinerungen semantischer Beziehungen. Syntaktische Beziehungen sind aber, einmal entstanden, nicht nur für den Bereich semantischer Beziehungen massgebend, sondern ihre Gültigkeit geht darüber hinaus... Der Begriff der syntaktischen Widerspruchsfreiheit... bezieht sich... unter Umständen auch auf semantisch widerspruchsvolle Systeme."

31. George Lakoff, "On Generative Semantics", mimeographed copy, p. 65a.

32. John Lyons, Introduction to Theoretical Linguistics, Cambridge 1969, p. 388.

32a Chomsky's discussion of the feasibility of modifying the 'standard theory' by taking into consideration " a new set of structures $\in$ [for "case systems"] which represent semantically significant relations among phrases such as the relation of agent-action ... and of instrument-action ..." ("Deep Structure, Surface Structure, and Semantic Interpretation", p. 14.) misses the point that what we are concerned with is semantic structures and the linguistically (syntactically) relevant semantic relations among the arguments in a predication, not among phrases in a syntactic structure.

33. Charles J. Fillmore, "The Case for Case", in: Universals in Linguistic Theory (cp. note 4).

34. id., "Lexical Entries for Verbs", FL 4 (1968), pp. 373ff.; "Subjects, Speakers and Roles", to appear (? or already published) in SYNTHESE, An International Journal for Epistemology, Methodology and Philosophy of Science.

35. Essentials of English Grammar, New York, 1970.

36. op. cit. (cp. note 7).

37. Integration of Transformational Theories on English Syntax, Los Angeles, 1969.

38. Jerrold J. Katz, op. cit. (cp. note 8).

39. Tommy R. Anderson, "On the Transparency of BEGIN: Some Uses of Semantic Theory", FL 4 (1968), p. 394.

40. Georg Klaus, Spezielle Erkenntnistheorie, S. 226.

41. ibid., S. 230.

42. Cp. Charles J. Fillmore, "Lexical Entries...", loc. cit., p. 378.

43. taken from Terence D. Langendoen, The Study of Syntax, New York, 1969, p. 164.

44. Charles J. Fillmore, "Lexical Entries...", loc. cit., p. 381.

45. Terence D. Langendoen, Essentials of English Grammar, New York, 1970, p. 62.

46. Mark M. Goldin, Spanish Case and Function, Washington, s.a., p. 5.

46. kind information from my colleague, Mr. Patrick Plant, M.A.

49. pObjective and pAgentive stand for "pure Agentive", "pure Objective", E-Objective for effected object, also called object of result, E-Agentive for effecting agent, non-an Patient for non-animate Patient or object the 'state' of which is changed as a result of the action, the object that is subject to change, dir C-Agentive stands for direct causative agent. #S# is used for reflected state of affairs (Sachverhalt).

50. Noam Chomsky's recent attempts at modifying his 'standard theory' by fitting certain notions of 'case grammar' into it and thereby making it suitable for handling what he calls "semantically significant relations among phrases such as the relation of agent-action... and of instrument-action" ("Deep Structure, Surface Structure, and Semantic Interpretation", p. 14), cannot, in our opinion, be considered a solution to the fundamental problem.

Although partial solutions may, perhaps, be attainable in the suggested way and also more or less satisfactory solutions to some of the problems raised in our paper, it seems to us that there is not much less 'syntactic determinism' in the 'modified model' than there was in the 'classical' one.

As far as we can see the idea is still there of the possibility of placing a basic assertion type in one-to-one correspondence with a basic assertive sentence type or, more precisely, perhaps, placing the underlying - language invariant - relational structure of a simple predication (assertion) in one-to-one correspondence with the underlying - language invariant or universal - deep syntactic structure of a simple assertive sentence that expresses it, or, at

least, of mapping o n e particular semantic relational structure onto o n e general syntactic deep structure considered to be "essentially invariant across languages" (Language and Mind, p. 66).

It is this basic assumption, however, as we have tried to show, that is open to doubt.

Chomsky's remarks that "it might be argued that the case system expresses these facts in a 'direct way' whereas the standard system does so only 'indirectly' " and that " this distinction seems to" him "meaningless" ("Deep Structure...", p. 16), obviously miss the point. The difference is certainly not a difference in the directness of the expression of certain facts but a fundamental difference in the approach to grammar as characterized in the introductory remarks to our paper.

51. Quantitative/Metrical includes such notions as SPATIAL{Magnitude / Extension / Extent} or SIZE, here restricted to measurements in one direction: height, length, breadth, width, depth, thickness ; DURATION in time, length of time during which something continues or exists, or during which a being or thing has existed (AGE); (monetary or other) VALUE/WORTH; (degree or quantity of) hotness or coldness (TEMPERATURE) or heaviness (WEIGHT).

> should preferably be read as:

" be great {in {comparison with / relation to} / with respect to} ... " or

" be above ... "

and > as "be very great {in {comparison with / relation to} / with respect to} .. " or

"be much above ... ."

52. John Lyons, Introduction to Theoretical Linguistics, p. 465.

53. The predicate term in S assigns positive value, exact dimensions or an accurate measurement to quantitative or metrical properties of the kind mentioned in 51. Quantitative Measure(ment) may be read as "be of a specified measure, quantity, amount, duration, value, etc." or "have a specified dimension/measurement, amount, quantity, duration, value, etc."

54. Peter A. M. Seuren, Operators and Nucleus. A Contribution to the Theory of Grammar, Cambridge 1969, p. 78.

55. Noam Chomsky, "The Current Scene...", loc. cit., p. 57.

56. Jerrold J. Katz, The Philosophy of Grammar, p. 107.

57. Cp. Noam Chomsky, "The Current Scene...", loc. cit., p. 57.

58. A.A. Hill, Linguistics. Voice of America Forum Lectures, 1959, p. 305.

59. This also seems to be the opinion of Leonardo Spalatin who, in his paper "Approach to Contrastive Analysis", The Yugoslav Serbo-Croatian - English Contrastive Project, B. Studies 1, Zagreb 1969, p. 26, expresses the view that "the fact that most of what is written or said in one language can be translated into another language indicates that there must be a certain, rather high, degree of similarity between languages... However great the differences in the isolated language elements between languages, it is still possible to render a very large portion of meaning conveyed by the elements of one language into another."

60. Noam Chomsky, Aspects of the Theory of Syntax, p. 4.

61. Charles J. Fillmore, "The Case for Case", loc. cit., p. 88.

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SOME REMARKS ON THE FACTIVE AND NON-FACTIVE COMPLEMENTS IN ENGLISH AND SERBO-CROATIAN

1. Paul and Carol Kiparsky[1] have shown that the choice of complement type is in large measure predictable from a number of basic semantic factors. In particular they have laid strong emphasis on the assumption that the syntactic form in which a complement can appear in the surface structure is largely determined by whether the speaker presupposes that the complement expresses a true proposition (i.e. is a factive complement) or not. Thus certain verbs, such as ignore, regret, resent, and adjectives, such as odd, glad, tragic, significant, take only factive predicates as in the following examples:

I regret that it is raining.
I resent the fact that Mary has been the one who did it.
It is odd that it is raining.
I am glad that you have come.

Other verbs and adjectives take only non-factive predicates:

I believe Mary to have been the one who did it.
He avoided getting caught.
I suppose that it is raining.
It is likely that it is raining.

That factivity and non-factivity determine the choice of complement is clear from the following examples with non-factive complements, which are all unacceptable:

*Everyone supposed John's being completely drunk.
*He avoided having got caught.[2]

*I resent Mary to have been the one who did it.

(Cf. I believe Mary to have been the one who did it.)

To determine whether there is presupposition on the part of the speaker that the proposition of the complement is true i.e. whether the complement is factive, the authors use the test of negating the clause to which the complement in question is subordinate. Thus in

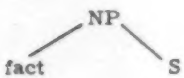
I don't believe that John is ill

it is no longer asserted that John is ill; but in

It is not odd that the door is closed

it is still presupposed that the door is closed, showing that this complement is factive.

The authors assume that presupposition of complements is reflected in their deep structure; that is, factive complements are dominated by a NP the head of which is fact.



Factive

Non-factive

The noun fact sometimes appears in the surface structure: I regret the fact that John is ill.

2. It is the purpose of this paper to show that factivity and non-factivity are reflected in Serbo-Croatian in the surface structure in the choice of complementizer,[3] at least in certain predicate complements.

2.1. While in English that-clauses are ambiguous, and constitute the point of overlap (neutralization) of the factive and non-factive paradigm[4], the corresponding clauses in SC display a difference in the choice of complementizer.

Thus that is in SC either rendered as da or što; the complementizer da occurs with the non-factive, the complementizer što with factive complements, as is evident from the following examples:

a. That-clauses with verbs

(SC equivalents: verbs, adverbs)

Non-factive complements

(1) I believe that John is ill.

(1SC) Verujem da je Jovan bolestan.

(2) I think that he will come.

(2SC) Mislim da će doći.

(3) I suppose that it is raining.

(3SC) Pretpostavljam da pada kiša.

(4) I doubt that you can do it.

(4SC) Sumnjam da to možete uraditi.

Factive complements

(5) I regret that I followed his advice.

(5SC) Žao mi je što sam poslušao njegov savet.

(6) I dislike it that he is so lazy.

(6SC) Ne svidja mi se što je toliko lenj.

(7) He rejoiced that he had won the first prize.

(7SC) Radovao se što je dobio prvu nagradu.

(8) She resents it that nobody takes her seriously.

(8SC) Vredja se što je niko ne shvata ozbiljno.

b. That-clauses with adjectives

Non-factive complements

(9) I am certain that he is away.

(9SC) Siguran sam da je odsutan.

(10) I am confident that we can supply your needs.

(10SC) Ubedjen sam da možemo zadovoljiti vaše potrebe.

(11) They were sure that you were coming.

(11SC) Bili su uvereni da ćete doći.

Factive complements

(12) I am sorry that he is away.

(12SC) Žao mi je što je odsutan.

(13) I am happy that we can supply your needs.

(13SC) Srećan sam što možemo zadovoljiti vaše potrebe.

(14) They were disappointed that you were unable to come.

(14SC) Bili su razočarani što niste mogli da dodjete.

It is interesting to notice that što-clauses can never correspond to "the accusative-with-infinitive construction" in E. This is due to the fact observed by the Kiparskys[5] that the accusative-with-infinitive construction (which in transformational terms arises through subject-raising) is possible only with non-factive complements. Thus:

(15) He believes John to be rich.

(15SC) Veruje da je Jovan bogat.

* He resents John to be rich.

(16) He resents it that John is rich.

(16a) He resents John's being rich.

(16SC) Krivo mu je što je Jovan bogat.

The verbs znati and shvatati are factive semantically, but syntactically non-factive.

(17) I know that John is ill.

(17SC) Znam da je Jovan bolestan.

(18) I realize that the difficulties are enormous.

(18SC) Shvatam da su teškoće ogromne.

This pecularity in SC ties up with the fact that the corresponding verbs in E, i.e. know and realize are also factive semantically but syntactically non-factive. The Kiparskys have pointed out that the factive gerund cannot be used with the verbs to know, although it is a factive predicate (*I know John's being here), whereas the accusative-with-infinitive construction is possible i.e. I know him to be there, contrary to the general rule that this construction is possible only with non-factive complements.[6]

2.2. The same correspondence naturally exists when English gerunds are rendered in SC. Factive gerunds are often rendered as što-clauses, whereas non-factive gerunds are rendered as da-clauses.

a. The gerund with verbs

Non-factive complements

(19) She continued talking.
(19SC) Nastavila je da govori.

(20) I hate smoking in the bathroom.
(20SC) Ne volim da pušim u kupatilu.[7]

(21) She dreaded his having another heart-attack.
(21SC) Plašila se da će dobiti još jedan srčani napad.

Factive complements

(22) I don't like their interfering in my business.[8]
(22SC) Ne volim što mi se mešaju u posao.

(23) I apologise for coming late.
(23SC) Izvinjavam se što sam zakasnio.

(24) I don't regret coming.
(24SC) Nije mi žao što sam došao.

b. The gerund with adjectives

Non-factive gerunds with adjectives are rarely rendered as da-clauses in SC; an example is (25) She is fond of reading. : Voli da čita. The ways in which they are rendered in SC remain to be explored; some of the examples are:

(26) She is passionate about swimming.
(26SC) Ima strast prema plivanju.

(27) Apples are ripe for picking.
(27SC) Jabuke su zrele za branje.

(28) John is given to drinking.
(28SC) Jovan je sklon piću.

But factive gerunds often correspond to the SC što-clauses:

(29) We were quite right in coming early.
(29SC) Bili smo potpuno u pravu što smo rano došli.

(30) I am worried about their not writing.
(30SC) Brinem se što ne pišu.

(31) I am angry with you for leaving the heater on.
(31SC) Ljuta sam na vas što ste ostavili grejalicu uključenu.

(32) I am grateful to you for coming at once.
(32SC) Zahvalan sam vam što ste odmah došli.

(33) She was angry at John's getting drunk.
(33SC) Bila je ljuta što se Jovan opio.

2.3. Non-factive infinitives in E also correspond to da-clauses in SC, and factive infinitives to što-clauses.

Non-factive complements

(34) I want to do some work.
(34SC) Želim da radim.

(35) She was impatient to leave.

(35SC) Bila je nestrpljiva da ode.

(36) He is ready to go.

(36SC) Spreman je da podje.

Factive complements

(37) I am glad to see you.

(37SC) Milo mi je što vas vidim.

(38) I was happy to win the prize.

(38SC) Bio sam srećan što sam dobio nagradu.

(39) I am sorry to hear it.

(39SC) Žao mi je što to čujem.

2.4. As it is pointed out by the Kiparskys, present (factive) gerunds can refer to a past state, but (non-factive) present infinitives cannot. Thus,

They resented his being away

is ambiguous as to the time reference of the gerund, and on one prong of the ambiguity is synonymous with

They resented his having been away.[9]

In SC the ambiguity is resolved by the tense in the što-clause; taken out of the context, the sentence (40) They resented his being away has two versions in SC:

(40aSC) Ljutilo ih je što je odsutan.

(40bSC) Ljutilo ih je što je bio odsutan.

Similarly, with adjectives:

(41) She is angry at being neglected.

(41aSC) Ljuta je što je zanemaruju.

(41bSC) Ljuta je što su je zanemarili.

3. As it appears, the choice of da-clause or što-clause depends largely on whether the complement is non-factive or factive. It is by no means implied that da-clauses and što-clauses are the only equivalents of non-factive and factive predicate complements in E. A more extensive investigation of complements both in E and SC would undoubtedly reveal other regularities.[10] For instance, the factive gerund in (42) I was embarassed at being asked to make a speech is rendered by a time-clause in SC:

(42SC) Zbunio sam se kad su od mene tražili da održim govor.

Similarly,

(43) I was relieved to see her back.

(43SC) Laknulo mi je kada sam video da se vratila.

(44) He was right in saying that this is a difficult job.

(44SC) Bio je u pravu kada je rekao da je ovo težak posao.

It should be pointed out that in E a time-clause is also possible:

(45) I was embarrassed when I was asked to make a speech.

(46) He was right when he said that this is a difficult job.

This seems to depend on the kind of verbal (i.e. verb or adjective) in the main clause, and, perhaps, to some extent, of that in the complement clause. In the example (47) I made a mistake in accepting the offer, in SC either a time-clause or što-clause is possible:

(47aSC) Pogrešio sam kada sam prihvatio ponudu.

(47bSC) Pogrešio sam što sam prihvatio ponudu.

Notice, however, that in E, too, it is possible to use a time-clause:

(48) I made a mistake when I accepted the offer.

In addition to what has been said above, it must be stressed that emotivity, another semantic distinction introduced by the authors of "Fact", affects the choice

of što and da in SC.[11] According to the Kiparskys, emotive complements are those to which the speaker expresses a subjective or evaluative reaction.[12] It appears that in SC only emotive factive complements are generally introduced by što, whereas non-emotive factive complements are introduced by da, as is the case in the following examples:

Subject Clauses

Emotive factive complements

(49) It is sad that many modern philosophers speculate only about language.

(49SC) Tužno je to što mnogi današnji filozofi razmišljaju samo o jeziku.

(50) It is extremely odd that nobody is interested in the problem.

(50SC) Pravo je čudo što nikoga ne zanima taj problem.

Non-emotive factive complements

(51) It is well-known that many modern philosophers speculate only about language.

(51SC) Poznato je da mnogi današnji filozofi razmišljaju samo o jeziku.

(52) It is clear that nobody is interested in the problem.

(52SC) Jasno je da nikoga ne zanima taj problem.

Object clauses

Emotive factive complements

(53) She regrets that some people were unable to come.

(53SC) Žao joj je što neki ljudi nisu mogli da dodju.

(54) I resent it that John is so self-centred.

(54SC) Ljuti me što je Jovan toliko egocentričan.

Non-emotive factive complements

(55) She is aware that some people were unable to come.

(55SC) Svesna je toga da neki ljudi nisu mogli da dodju.

(56) I must bear in mind that John is very self-centred.

(56SC) Moram imati na umu da je Jovan veoma egocentričan.[13]

It is not, however, invariably the case that emotive factive complements are introduced by što; important and interesting, though seemingly emotive, take da when rendered with complements in SC.

(57) It is important that the author gives his own view whenever an occasion arises.

(57SC) Važno je da pisac izražava sopstveno mišljenje kad god se za to ukaže prilika.

(58) It is interesting that it is fashionable to be abstruse.

(58SC) Zanimljivo je da je moderno biti nejasan.

Another interesting point in connection with SC factive complements is that the pronoun to can precede the complementizer što, in the case of emotive factive complements, or da, in the case of non-emotive factive complements. Thus:

Emotive factive complements

(59) I am horrified that they still haven't answered my letter.

(59SC) Užasava me to što još nisu odgovorili na moje pismo.

(60) I was flabbergasted at their lying.

(60SC) Zaprepastilo me je to što su lagali.

Non-emotive factive complements

(61) He forgets the fact that few students are interested in the serious study of literature.

(61SC) Zaboravlja na to da mali broj studenata interesuje ozbiljno proučavanje književnosti.

(62) I am aware that the situation has changed.

(62SC) Svestan sam toga da se situacija izmenila.

(63) We must take into account the fact that semantic factors play an important role in syntax.

(63SC) Moramo uzeti u obzir to da semantički faktori igraju značajnu ulogu u sintaksi.

In conclusion, it should be pointed out that in contrastive analysis of complements in E and SC, factivity v. non-factivity of complements is an important factor and should be paid due attention whether the actual analysis is based on this distinction or on some other criteria.

NOTES

1. Paul and Carol Kiparsky, "Fact", mimeographed, M.I.T., January 1968 (To appear in Bierwisch and Heidolph (eds), Recent Advances in Linguistics).

2. The authors point out that factive gerunds are what Lees (1960) has termed 'factive nominals.' Cf. Robert B. Lees, The Grammar of English Nominalizations, Mouton, The Hague 1960.

3. Complementizers are morphemes serving to introduce subordinate structures. Rosenbaum lists the following complementizers for English: that, for...to (as in For him to go...; also occurs without for), possessive...-ing (as in John's smoking...; also occurs without possessive). Cf. Peter S. Rosenbaum, The Grammar of English Predicate Complement Constructions, The M.I.T. Press, Cambridge, Massachusetts, c 1967, p. 24 ff.

4. Kiparsky, op. cit., p. 10.

5. Ibid., p. 13.

6. Cf. Ibid., note 3.

7. I hate smoking in the bathroom is an ambiguous sentence. If the subject of the complement sentence reduced to the gerund by nominalization transformation is the same as that of the main sentence (that is to say the complement sentence is I smoke), it is rendered in SC as above; if, on the other hand, the subject of the complement sentence is an unspecified subject (that is, $\triangle$smoke), the SC equivalent is: Ne volim da se puši u kupatilu.

8. It seems that there is an interdependence between factivity v. non-factivity and the subject of the complement sentence: if the subject is indefinite, the complement is non-factive:

   I don't like anyone interfering in my business.
   Ne volim da mi se iko meša u posao.

   I don't like strangers interfering in my business.
   Ne volim da mi se strani ljudi mešaju u posao.

9. Kiparsky, op. cit., N. 8, p. 39.

10. Milka Ivić has made an extensive study of the problem in SC, which is awaiting publication.

11. I am indebted to Wayles Browne for calling my attention to this phenomenon.

12. Kiparsky, op. cit., p. 27.

13. Notice that in non-emotive factive complements one cannot use the intensifier so in E and the corresponding toliko in SC:

   *I must bear in mind that John is so self-centred.

   *Moram imati na umu da je Jovan toliko egocentričan.

Wayles Browne (University of Zagreb)

ON CONJOINED QUESTIONS AND CONJOINED RELATIVE CLAUSES IN ENGLISH AND SERBO-CROATIAN

1. As is well known, both Serbo-Croatian and English have means for forming yes-no questions and relative clauses. What is more, these categories correspond well in the two languages: a question is normally translated by a question, and a relative clause by a relative clause, although English provides some devices which SC lacks for condensing relative clauses into other constructions.[1] The differences between the languages are mainly in the superficial structures of the interrogative or relative clauses. This paper seeks to point out one such difference, one which is generally unnoticed since it appears only when two or more clauses are joined by means of conjunctions.

We take up questions and relatives in turn, first reviewing their usual surface structures in each language.

2. Yes-no questions.

2.1. In E, yes-no questions have inversion of subject and auxiliary verb. The question corresponding to

(1) Mary is reading Erasmus.

is

(1a) Is Mary reading Erasmus?

If the auxiliary consists of more than one word, only the first word is inverted with the subject:[2]

(2) Mary will have finished reading the book soon.

(2a) Will Mary have finished reading the book soon?

In sentences which would otherwise have no verb that acts as an auxiliary, a form of do is used as an auxiliary. This form carries the tense markers, while the verb following it is uninflected.

(3) Mary likes the classics.

(3a) Does Mary like the classics?

2.2. SC yes-no questions are generally made with special question markers: li, da li, jel'.

2.2.1. Li is an enclitic and follows the general rules for SC enclitics, which we will set forth briefly. All the enclitics in a clause come in a group, one following another in a fixed order. The group normally comes after the first accented element of the clause; it may come directly after the main verb, but never comes later in the clause than that. Using the pronoun enclitic mi "to me", ih "them" for purposes of illustration:

(4) Onaj tvrdoglavi rodjak mi ih stalno vraća.
That stubborn cousin continually gives them back to me.

Here Onaj tvrdoglavi rodjak, a noun phrase, counts as the first element. The first accent-bearing word, onaj, can also count as the first element:

(5) Onaj mi ih tvrdoglavi rodjak stalno vraća.

An example of the enclitics coming directly after the main verb vraća:

(6) Onaj tvrdoglavi rodjak vraća mi ih stalno.

The could not come later than immediately after the verb:

(7) *Onaj tvrdoglavi rodjak vraća stalno mi ih.

The need for correct order within the group is seen in:

(4a) *Onaj tvrdoglavi rodjak ih mi stalno vraća.

Li, in addition to this, requires that the verb should be put first in the

clause:

(8) Vraća li mi ih onaj tvrdoglavi rodjak?
Is that stubborn cousin giving them back to me?

Here we see that li comes before all the other enclitics in the group.

The verb which is put first is the one which carries the tense or mood marker: hence, in compound tenses, it is the auxiliary, rather than the main verb (infinitive or form in -l-).

(9) Bîste li ih vratili?
Would you give them back?

(9a) *Vratili li ih biste?

If the verb to be put first is an enclitic, a noun-enclitic form of it must be used, since no enclitics can stand at the beginning of the sentence. In (9), accented bîste is the non-enclitic form of the usual unaccented biste; in (10a) jesu is the non-enclitic version of su.[3]

(10) Vratili su knjige.
(They) have returned the books.

(10a) Jesu li vratili knjige?
Have they returned the books?

2.2.2. Da li is put at the beginning of the sentence. The enclitic group must directly follow da li, as it must follow other interrogative words and subordinating conjunctions.[4]

(11) Da li ih je onaj tvrdoglavi rodjak vratio?
Did that stubborn cousin return them?

(11a) *Da li onaj tvrdoglavi rodjak ih je vratio?

One might be tempted to consider da li as merely the conjunction da followed by the interrogative word li. There are two arguments against this position, however. The first is that the conjunction da is normally used to introduce certain specific types of clauses (purpose clauses, conditional clauses, complements

to verbs, etc.), i.e. with a specific function; while the da in da li has no separate function as a conjunction, no role to play that is not already played by the li. Second, when the clause being made interrogative already begins with a conjunction da, the result is not just this da followed by li, but da li + da:

(12) Da predjemo zajedno ulicu.
Let's cross the street together.

(12a) Da li da predjemo zajedno ulicu?
Shall we cross the street together?

In view of these arguments, we consider da li to be a single unit. We might treat da li as the non-enclitic form of the enclitic li. This treatment would explain why some SC speakers regard da li as more strongly interrogative than li, since non-enclitic forms are always more emphatic than the corresponding enclitics in environments where a choice between them is possible.

2.2.3. Je li or jel' seems to have the same properties and use as da li. It is frequently heard in colloquial speech, though ignored by grammars and not used in written style.

2.3. Let us say that a sentence or clause is formulated as a question if it follows the patterns given in 2.1. and 2.2.

2.3.1. In SC, when yes-no questions are joined with the conjunction ili "or", only the first of the series of questions is formulated as a question:

(13) Da li su se vratili u Rijeku ili su ostali u Zagrebu?
(13a) *Da li su se vratili u Rijeku ili da li su ostali u Zagrebu?

(14) Jesu li se vratili u Rijeku ili su ostali u Zagrebu?
(14a) *Jesu li se vratili u Rijeku ili jesu li ostali u Zagrebu?

(15) Jesu li se vratili u Rijeku ili misle ostati u Zagrebu?
(15a) *Jesu li se vratili u Rijeku ili da li misle ostati u Zagrebu?

(16) Hoće li ostati u Zagrebu ili misle otići u Rijeku?

(16a) *Hoće li ostati u Zagrebu ili misle li otići u Rijeku?

An example from the newspaper Vjesnik:

(17) Je li opomena kazna i disciplinska mjera ili je ona ... nešto sasvim drugo?[5]

2.3.1.1. When yes-no questions are joined with i "and", the situation is different, for this word can join sentences having no direct relation to one another.

(18) Jesi li bio u Rijeci, i jesi li razgovarao s mamom?

(18a) *Jesi li bio u Rijeci, i razgovarao si s mamom?

It does not seem to be possible to join yes-no questions with ali "but", a "and, but", or other co-ordinating conjunctions.

2.3.2. In E, on the other hand, all the members of a conjoined series of questions must be formulated as questions.

(13E) *Did they go back to Rijeka or (they) stayed in Zagreb?

(13aE) Did they go back to Rijeka or did they stay in Zagreb?

Sentences (13E), (13aE) also correspond to (14), (14a).

(15E) *Have they gone back to Rijeka or (they) are thinking of staying in Zagreb?

(15aE) Have they gone back to Rijeka or are they thinking of staying in Zagreb?

(16E) *Will they stay in Zagreb or (they) are thinking of going to Rijeka?

(16aE) Will they stay in Zagreb or are they thinking of going to Rijeka?

(17E) *Is a warning a punishment and disciplinary measure, or (it) is something entirely different?

(17aE) Is a warning a punishment and disciplinary measure, or is it something entirely different?

2.3.2.1. This applies likewise to E questions conjoined with and:

(18E) Were you in Rijeka, and did you talk to Mother?

(18a) *Were you in Rijeka, and you talked to Mother?

2.3.3. It is true that (13aE) could also be expressed as:

(13bE) Did they go back to Rijeka or stay in Zagreb?

This sentence is no exception to the principle that all the members of a series must be formulated as questions, since it is made from (13aE) by dropping the repeated auxiliary verb and repeated subject. In just the same way, (13c) can be made from (13b):

(13b) Da li su se oni vratili u Rijeku ili su (oni) ostali u Zagrebu?

(13c) Da li su se oni vratili u Rijeku ili ostali u Zagrebu?

In sentences (13bE) and (13c), the surface structure contains only one subject, one auxiliary verb, and one indication of interrogativity, followed by two main verbs joined by or, ili. Similarly in (17) the repeated subject and verb can be left out:

(17b) Je li opomena kazna... ili nešto sasvim drugo?

(17bE) Is a warning a punishment... or something entirely different?

3. Relative clauses.

3.1. E relative clauses begin with relative words or with phrases containing relative words.[6] These words or phrases can play a certain role in the clause, for example that of subject, object of a verb, object of a preposition, adverbial modifier, etc. Thus, in the underlined relative clause in (19) and (19a), which plays the role of object of the preposition about:

(19) The question about which you were speaking is very important.

(19a) The question which you were speaking about is very important.

The relative words that, ∅ must be at the very beginning of the clause:

(19b) The question that you were speaking about is very important.

(19c) *The question about that you were speaking is very important.

(19d) The question ∅ you were speaking about is very important.

(19e) *The question about ∅ you were speaking is very important.

3.2. Relative clauses in SC: koji etc. and što.

3.2.1. SC has relative words like those of E, e.g. koji "which, who", and similar rules for putting relative words or expressions first in the clause. There are differences in detail, or course, such as that the object of a preposition cannot be moved to the front alone; the whole prepositional phrase must be taken.

(19SC) Pitanje o kojem ste raspravljali vrlo je važno.

(19aSC) *Pitanje kojem ste raspravljali o vrlo je važno.

3.2.2. Another way to make relative clauses that refer to noun phrases is with što at the beginning of the clause:

(20) Pitanje što ste o njemu raspravljali vrlo je važno.

As we see, što does not play a role within the clause, since it would be a complete sentence without što:

(21) Raspravljali ste o njemu.
You were speaking about it.

The prepositional phrase (whose role was played by o kojem in (19SC)) is still in its place in the clause, with a personal pronoun as its object: o njemu. The pronoun refers to the antecedent noun (pitanje), and agrees with it in gender and number. The case of the pronoun is governed by its function within the relative clause (object of a preposition, of a verb, etc.):

(22) Pitanje što ste ga postavili vrlo je važno.
The question which you have raised is very important.

In (22), the pronoun has the form ga, accusative, since it is the direct object of the verb postavili.[7]

3.2.3. The existence of these two alternative ways to make relative clauses leads a grammarian using the transformational method to propose the following description: a relative clause, in its underlying structure, contains a part which repeats the antecedent element (in our examples: pitanje) to which the relative clause refers. Thus (23) shows this structure, slightly simplified:

(23) pitanje Rel (vi) ste raspravljali o pitanju

Here Rel is a morpheme which indicates that the clause is a relative clause. (The clause itself is underlined, for clarity.)

The repeated element (pitanju) is made into a personal pronoun by a pronominalization transformation, just as repeated elements are pronominalized in any sort of sentence:

(24) pitanje Rel (vi) ste raspravljali o njemu

Then another transformation can act which brings the pronominalized element to the beginning of the clause:

(25) pitanje o njemu + Rel (vi) ste raspravljali

Rel together with a pronoun gives a relative pronoun, so that the structure (25) has the surface form seen in sentence (19SC). Rel by itself is pronounced što, so that if this fronting transformation does not act, (24) has the surface form (20a) or (20).

(20a) pitanje što ste raspravljali o njemu

In English, the rule which brings the pronominalized element to the front must act; one cannot say

(20aSC) *the question that you spoke about it

in standard English, although such constructions appear in some dialects.

Of course, the description we have given is not the only possible one. A critic might still say that što...o njemu and o kojem were merely two alternative constructions, made in totally different ways. But in section 3.3.1. we will see some phenomena which our proposal will help us to understand.

3.3. As in the case of questions, we will say that a clause is formulated as a relative clause if it follows the patterns discussed in 3.1. and 3.2.

3.3.1. In SC, when relative clauses are joined with a conjunction, only the first of the clauses has to be formulated as a relative clause; one can say both (26) and (26a).

(26) zemlja o kojoj znamo vrlo malo ali koju smatramo važnom

(26a) zemlja o kojoj znamo vrlo malo ali je smatramo važnom

As we see, the second clause need not have any relative pronoun or što in it; when it does not have these elements, it contains a personal pronoun. Our proposed transformational treatment explains why this personal pronoun appears. The second clause passes through stages like those shown in (23) and (24); but since it has no Rel morpheme, the personal pronoun must remain within the clause.

Examples of conjoined relative clauses in which the second contains a personal pronoun:

(27) Zahvaljujem i svim onim fonetičarima na čijim sam djelima učio i studirao fonetiku, te sam se u svome radu služio njihovim djelima direktno ili indirektno. (R. Filipović)

(28) ... iznosi svoje poglede koje je delimice primio iz dosadašnje naučne literature, a delimice i sam došao do njih. (A. Belić)

(29) ... pojedinosti – koje stalno treba pamtiti i umeti se njima služiti kad nastavnik zapita – (Naš jezik)

One also finds examples where each of a series of conjoined relative clauses is formulated as a relative clause:

(30) ... pa i onih [kadrova] koji su potrebni našoj privredi i koji su osnovni preduvjet za brži i efikasniji razvoj naše privrede. (Vjesnik)

(31) ... tzv. "interventna područja", koja nisu u klubu nerazvijenih, ali prema čijim razvojnim teškoćama društvo ne može ostati skrštenih ruku. (Večernji list)

Each of these examples could have the opposite construction as well, e.g.

(27a) ... na čijim sam djelima učio i studirao fonetiku, te čijim sam se djelima u svome radu služio...

(31a) ... koja nisu u klubu nerazvijenih, ali društvo ne može ostati skrštenih ruku prema njihovim teškoćama.

The situation, then, is in part parallel to what we found with questions. (26a), (27), (28), and (29) contain only one Rel marker, which is followed by a number of conjoined clauses (just as the questions conjoined with ili, 2.3.1., contain only one question marker which is followed by more than one clause). For (26a), the stages in the derivation would be:

(32) zemlja Rel znamo vrlo malo o zemlji ali smatramo zemlju važnom

Both repeated nouns are affected by the pronominalization rule:

(33) zemlja Rel znamo vrlo malo o njoj ali smatramo je važnom

But only the first of the pronouns can be moved to the beginning and combined with Rel:

(34) zemlja o njoj + Rel znamo vrlo malo ali smatramo je važnom

and (34) has the surface form (26a), in which the enclitic je follows ali because ali counts as the first element of the clause ali... važnom (see 2.2.1.).

On the other hand, sentences (26), (30), and (31) have a relative marker for each clause, so that each clause is formulated as a relative clause.

3.3.2. English, as with questions, requires all relative clauses to be formulated as such. Thus we can have:

(26E) a country about which we know very little but which we consider important

but not[8]:

(26aE) *a country about which we know very little but we consider it important.

The literal translations of (27), (28), and (29) are likewise ungrammatical:

(27E) *phoneticians from whose works I have learned and studied phonetics and I have used their works...

(28E) *views which he has partly taken from previous literature and he has partly arrived at them himself.

(29E) *details which one must always remember and one must be able to apply them when the teacher asks.

Rather, one must say:

(27aE) phoneticians from whose works I have learned and studied phonetics, and whose works I have used...

(28E) views which he has partly taken from previous literature and which he has partly arrived at himself.

etc.

3.3.3. Of course, neither E nor SC always has to be as prolix as in the examples shown. In both languages, an element that is identical in several clauses can be omitted in some of the clauses, and needs to appear only once. This phenomenon is not limited to relatives and questions. Beside

(35) I will get up and I will go now.

one can say

(36) I will get up and will go now.

(omitting I, which stands in front position in the second clause just as in the first).

One can also omit I will, giving (37), the most natural formulation:

(37) I will get up and go now.

SC has similar possibilities:

(35SC) Ja ću ustati i ja ću otići sada.

Unless it is strongly emphasized, the second ja will normally be omitted in SC:

(36SC) Ja ću ustati i otići ću sada.

(See 2.2.1. on enclitics for the position of ću.) Or both ja and ću can be omitted:

(37SC) Ja ću ustati i otići sada.

This sort of omission has already been exemplified for questions in 2.3.3.

To show it at work on relatives, let us change our example slightly:

(38) Tibet is a country which we know well and which we consider important.

(38SC) Tibet je zemlja koju mi dobro poznajemo i koju (mi) smatramo važnom.

Here we can omit the second relative pronoun and the second subject pronoun we, mi:

(38a) Tibet is a country which we know well and consider important.

(38aSC) Tibet je zemlja koju mi dobro poznajemo i smatramo važnom.

English can make use of this omission more frequently than SC can, for at least two reasons:

a. Objects of verbs in SC can be in various cases (accusative, dative, ...), whereas in E all verbs take the same form. Thus the two objects in (39) are identical, and the second can be omitted:

(39) details which he remembers and (which he) uses.

But in (39SC) the object of pamti is accusative and that of služi se is instrumental, and so neither can be omitted.

(39SC) pojedinosti koje pamti i kojima se služi.

b. Objects of prepositions can be detached from their prepositions in E, and have the same form as objects of verbs. So in

(40) a country which we know very little about but (which we) consider important.

the second which and we, which are at the beginning of the second relative clause (just like which and we in the first relative clause), can be left out. This is not the case in SC:

(40SC) zemlja o kojoj znamo vrlo malo ali koju smatramo važnom.

4. We hope that this study will have a certain practical usefulness. It may improve the teaching of English as a foreign language, by helping to eradicate a particular error: ungrammatical sentences of the type

(41) *Did they go back to Rijeka or stayed in Zagreb?

(42) *... a country about which we know very little but consider it important.

are in fact found in the English of some otherwise extremely competent speakers of SC background. Further, it should help in the teaching of SC as a foreign language, by giving the teacher a means of explaining constructions that are bound to puzzle the E-speaking learner when he first runs up against them.

On the theoretical side, it should serve as an example of how the transformational approach can be helpful in contrastive work. It also shows the value of contrastive data in the study of individual languages. To a grammarian working on English alone, the idea that conjoined questions or relatives must all be formulated as questions (relatives) would seem intuitively evident. He might never think of stating it explicitly, or imagining that a language could exist in which this would not be the case.

NOTES

1. For instance, present participle constructions:
   (i) Anyone who drives too fast has to pay a fine.
   (ii) Anyone driving too fast has to pay a fine.
   (iSC) Svi koji prebrzo voze moraju platiti kaznu.
   (iiSC) *Svi prebrzo vozeći moraju platiti kaznu.
   See Dora Maček, "Relative Pronouns in English and Serbo-Croatian", Reports, 3, Yugoslav Serbo-Croatian - English Contrastive Project, Zagreb, 1970, p. 124.

2. In this connection, note that contractions of auxiliary verbs with not count as single words:
   (i) Mary won't have finished it by then.
   (ii) Won't Mary have finished it by then?
   When not is not contracted with the first auxiliary, it does not count as a single word and does not take part in inversion:
   (iii) Mary will not have finished it by then.
   (iv) Will Mary not have finished it by then?
   Examples like
   (v) *Will not Mary have finished it by then?
   pronounced as two words [wil not], though found in literature, are not normal in present-day English. This difference in behavior between contracted and non-contracted forms suggests that teachers and textbook writers should distinguish them very carefully, always writing won't, isn't etc. for the one-word forms [wount][izнt], and using the spelling will not, is not etc. only for the two-word forms [wil not], [iz not].

3. Jȅst(e) is the usual non-enclitic form of je; but before li another non-enclitic form, jȅ, is used.
   (i) Jȅ li došao? : Has he come?
   (ii) *Jeste li došao?

4. The possibility of putting the enclitic group after the main verb is not open when the sentence begins with these words:
   (i) *Da li vratio ih je onaj tvrdoglavi rodjak?

5. In (17), the order ili je is not the result of question inversion. Je, being an enclitic, is placed after the first element of the clause (see 2.2.1.), which is ili. A non-enclitic verb like predstavlja "represents" is not inverted:
   (17a) Je li opomena kazna i disciplinska mjera ili ona predstavlja nešto sasvim drugo?

6. See Maček, op. cit., for some details on the use of the various relative pronouns in E and SC.

7. When the pronoun is the subject of the verb in the relative clause, it is omitted, just as other subject pronouns are omitted in SC unless they are stressed or put in contrast.

(i) Predsjednik SIV Mitja Ribičič... izražava sućut u povodu teške nesreće što je zadesila grad Tuskaniju. (Vjesnik)

The president of the Federal Executive Council, Mitja Ribičič, expresses his regrets at the disaster which has struck the city of Tuscania.

Here što is not the subject of the verb je zadesila; -la is a feminine ending, and što has neuter agreement. The subject is a feminine personal pronoun, ona (referring to nesreća), but this pronoun must be left out of the surface form, since it is not stressed or contrasted.

Some speakers may not find the relatives with što fully acceptable; we shall give three examples showing that they are in current use.

(ii) Ako Sabor usvoji republički zakon što ga je danas prihvatilo Izvršno vijeće,... (Vjesnik)
If the Assembly passes the Republic law which the Executive Council accepted today,...

(iii) Upravo je ta tema... bila glavna u prvim ovogodišnjim medjunarodnim razgovorima što ih je sredinom siječnja Moro imao u Bukureštu s najvišim rukovodiocima Rumunjske. (Vjesnik)
Just this topic was the main one in the first international talks this year which Moro held with the highest officials of Rumania in Bucarest in the middle of January.

(iv) ... on ne pruža sve one prednosti što ih autor opisuje.(dr M. Košiček)
It does not yield all the advantages that the author describes.

Under some circumstances što is not possible, and koji must be used:

(v) *Spomenuli ste jedno pitanje što ćemo ga ostaviti za sutra.

(va) Spomenuli ste jedno pitanje koje ćemo ostaviti za sutra.
You have mentioned a question which we will leave until tomor.

These circumstances, so far unclarified, depend on the main clause, not on the relative clause itself; cf., with the same relative clause as (v):

(vi) Pitanje što ćemo ga ostaviti za sutra nije tako hitno.
The question which we will leave for tomorrow is not so important.

8. Of course, one can say

(26bE) Tibet is a country about which we know very little. But we consider it important.

But that would no longer be a relative construction.